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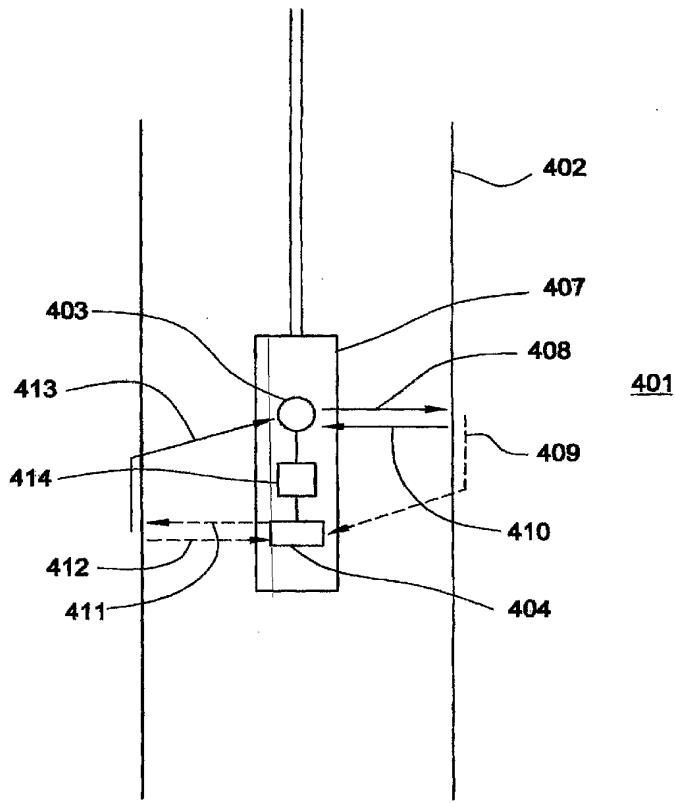
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(54) Title: CHARACTERIZING PROPERTIES OF A GEOLOGICAL FORMATION BY COUPLED ACOUSTIC AND ELECTROMAGNETIC MEASUREMENTS



(57) **Abstract:** A method for characterizing a formation (401). The method comprises exciting the formation with an acoustic wave propagating into the formation. A seismo-electromagnetic signal (409) produced by the acoustic wave (408) within the formation (401) is measured. The method further comprises exciting the formation (401) with an electromagnetic exciting field (411). An electromagneto-seismic signal (413) produced by the electromagnetic exciting field (411) within the formation is measured. The measured seismo-electromagnetic signal (409) and the measured electromagneto-seismic signal (413) are analyzed to evaluate characterizing parameters of the formation (401).



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